

§Appl. No. 10/067,482
Amdt. dated August 3, 2004
Reply to Office Action of, March 5, 2004

Listing of Claims:

Please **amend** the claims as follows:

Claim 1 (Withdrawn) An isolated polynucleotide comprising a polynucleotide sequence which codes without interruption for human ANH401 having the amino acid sequence set forth in SEQ ID NO 2, or a complement thereto.

Claim 2 (Withdrawn) An isolated human polynucleotide of claim 1, wherein the polynucleotide sequence which codes for human ANH401 has the nucleotide sequence set forth in SEQ ID NO 1.

Claim 3 (Withdrawn) An isolated human ANH401 polynucleotide comprising, polynucleotide sequence having 99% or more sequence identity along its entire length to the polynucleotide sequence set forth in SEQ ID NO 1, which codes without interruption for ANH401, or a complement thereto, and which has NADP binding activity.

Claim 4 (Withdrawn) An isolated human ANH401 polynucleotide of claim 3 which has dehydrogenase activity.

Claim 5 (Withdrawn) An isolated polynucleotide which is specific for an ANH401 of claim 1 and which codes for a polypeptide comprising amino acids 271-308 of SEQ ID NO 2.

Claim 6 (Currently Amended) An isolated human ANH401 polypeptide of claim 1 comprising,
the amino acid sequence set forth in SEQ ID NO.2.

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Claim 7 (Original) An isolated polypeptide which is specific for an ANH401 of claim 6 and which codes for a polypeptide comprising amino acids 271-308 of SEQ ID NO 2.

Claim 8 (Currently Amended) An isolated human ANH401 polypeptide comprising an amino acid sequence having 99% or more sequence identity along its entire length to the amino acid sequence set forth in SEQ ID NO 2, ~~and which has NADP-binding activity~~ and which comprises the sequence CDLFIQ (SEQ ID NO:2).

Claim 9 (Original) An isolated human ANH401 polypeptide of claim 8 which has dehydrogenase activity.

Claim 10 (Withdrawn) A method of treating a vascular disease or a disease association with vascularization, comprising:

administering to a subject in need thereof a therapeutic agent which is effective for regulating expression of said ANH401 of claim 1.

Claim 11 (Withdrawn) A method of claim 10, wherein said agent is an antibody specific for ANH401.

Claim 12 (Withdrawn) A method of claim 11, wherein said antibody is specific for an epitope of amino acids 303-308 of SEQ ID NO 2.

Claim 13 (Withdrawn) A method for identifying an agent that modulates the expression of ANH401 in cells capable of forming blood vessels, comprising:

contacting said cells with a test agent under conditions effective for said test agent to modulate the expression of ANH401 of claim 1 in said cells, and

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determining whether said test agent modulates said ANH401.

Claim 14 (Withdrawn) A method of claim 13, wherein said agent is an antibody specific for ANH401.

Claim 15 (Withdrawn) A method of determining the angiogenic index of a sample comprising cells, comprising:

assessing, in said sample, the expression level of ANH401 of claim 1, whereby said levels are indicative of the angiogenic index.

Claim 16 (Withdrawn) A method of claim 15, wherein the angiogenic index is assessed by polymerase chain reaction using polynucleotide primers specific for said genes.

Claim 17 (Withdrawn) A method of claim 15, wherein the angiogenic index is assessed by detecting polypeptides coded for by said genes using specific antibodies.

Claim 18 (Withdrawn) A method of regulating angiogenesis in a system comprising cells capable of forming blood vessels, comprising:

administering to said system an effective amount of a modulator of ANH401 polynucleotide of claim 1, or a polypeptide coded thereby, under conditions effective for the modulator to modulate said polypeptide, whereby angiogenesis is regulated.

Claim 19 (Withdrawn) A method of claim 18, wherein the modulator is an antibody specific-for said polypeptide.

Claim 20 (Withdrawn) A method of claim 18, wherein the antibody is conjugated to a

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cytotoxic or cytostatic agent.

Claim 21 (Withdrawn) A method of claim 18, wherein regulating angiogenesis is inhibiting angiogenesis;

Claim 22 (Withdrawn) A method of claim 18, wherein regulating angiogenesis is stimulating angiogenesis;

Claim 23 (Withdrawn) A method of claim 18, wherein the system is an *in vitro* cell culture or *in vivo*.

Claim 24 (Withdrawn) A method of claim 18, wherein the system is a patient having a cancer, coronary artery disease, myocardial ischemia, or coronary arteriosclerosis.

Claim 25 (Withdrawn) A non-human, transgenic mammal whose genome comprises a functional disruption of ANH401 of claim 1.

Claim 26 (Withdrawn) A method of advertising ANH401 of claim 1 for sale, commercial use, or licensing, comprising,

displaying in a computer-readable medium a polynucleotide set forth in SEQ ID NO 1, complements thereto, or a polypeptide set forth in SEQ ID NO 2.

Claim 27 (Withdrawn) An antibody which is specific for an epitope coding for amino acids 303-308 of a human ANH401 of claim 8 and which is specific for said ANH401.